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## **CLAIMS**

- 1. A fuel filter for diesel engines with high pressure direct injection of common rail type and the like, comprising an outer casing provided with a fuel inlet conduit (3) and an outlet conduit (4), and internally housing a filter means, said casing comprising an upper chamber (6) for containing said filter means, a lower chamber (7) communicating with said upper chamber to collect the water which said filter means (5) separates from the fuel, and means (8) for measuring the level of the water collected in the lower chamber (7), characterised in that said means for measuring the water level in the chamber (7) comprise a temperature sensor for generating an electrical signal, said signal being fed to an electronic card by two conductors.
- 2 A filter as claimed in claim 1 characterised in that said level sensor means comprises a float positioned in the collection chamber and having a specific gravity between the specific gravity of water and that of the fuel, and a float guide stem in the interior of which there is positioned a magnetic field sensor connected electrically to said electronic card by two conductors, said temperature sensor means being positioned in the interior of said stem in proximity to its upper free end.
- 3 A filter as claimed in claim 2 characterised in that one of the conductors connecting said temperature sensor means to said card is also connected to said magnetic field sensor.

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- 4 A filter as claimed in claim 1, characterised in that said temperature sensor is of NTC type.
- 5 A filter as claimed in claim 1, characterised in that said temperature sensor is embedded in a layer of conductive resin.